

Appln No. 09/619,553

Amdt date April 21, 2004

Reply to Office action of January 29, 2004

**Amendments to the Abstract:**

Please amend the Abstract as shown below. A replacement Abstract is also being submitted herewith.

a1  
~~A method and apparatus for verifying connectivity between network nodes in a communications network. For each node, elapsed periodic time intervals are provided. Elapsed periodic time intervals are and counted since the transmission of a link integrity indication frame, the link integrity indication frame being a frame which, when transmitted by a network node, can be received by all other nodes on the communications network and which contains a source identifier, such as a source address, that uniquely identifies a transmitting node. Frames are received from a sending node and a node state status and a current received frame source address are maintained during each periodic time interval. Upon the expiration of a predetermined elapsed the periodic time interval, if the node state status is not indicative of network traffic and a count of the elapsed periodic time intervals since transmission of a link integrity indication frame is greater than a predefined count limit, a are determined. A link integrity indication frame is transmitted. based upon determining the count of predetermined elapsed time intervals as being greater than a predefined count limit and the node state status as not being indicative of network traffic. A counter is incremented every time a periodic time interval elapses and the network node has not sent a link integrity indication frame during the elapsed time interval. The counter is reset whenever the network node transmits a link integrity indication frame. A node initial state status is established upon receipt of a frame from another node on the network. Upon receiving a subsequent frame within the predetermined elapsed time interval, the maintained current received frame source address is compared with a subsequent frame source address. If~~

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a1 ~~the comparing indicates a same source address, the node state status remains unchanged. If the comparing indicates a different source address, the node state status changes to being indicative of network traffic and transmitting a link integrity indication frame is suppressed.~~

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